EMPOWERING THE USE OF PEATLANDS FOR SUSTAINABLE AGRICULTURE IN FACING CLIMATE CHANGE WITH KAMPUNG SERI BUNIAN, PONTIAN, JOHOR PROGRAMME

PROGRAM MEMPERKASAKAN PENGGUNAAN TANAH GAMBUT SEBAGAI PERTANIAN LESTARI BAGI MENGHADAPI PERUBAHAN IKLIM BERSAMA KOMUNITI KAMPUNG SERI BUNIAN, PONTIAN, JOHOR

27 - 29 DECEMBER 2024

KAMPUNG SERI BUNIAN, PONTIAN, JOHOR BAHRU

BACHELOR OF SCIENCE IN ENVIRONMENTAL MANAGEMENT

FACULTY OF SCIENCE

SIH 2015: SOIL SCIENCE AND COMMUNITY (5 CREDITS)

1. Introduction

SULAM is a teaching and learning method that integrates the learning objectives of a course with community service, involving students interacting with the community to solve local issues using the knowledge and skills they have acquired in the classroom. It carries credit value, and the community service hours are included in the calculation of the total study hours for the related course. The core values of implementing SULAM activities in the community are Love, Happiness, and Mutual Respect.

For this session, second-year students from the Bachelor of Science in Environmental Management (SPAS) University of Malaya conducted a SULAM program with the theme "Empowering the Use of Peatlands for Sustainable Agriculture in Facing Climate Change".Our choice to did a SULAM regarding peat soil are because it is known to be one of the problematic soil in Malaysia. Kampung Seri Bunian in Pontian, Johor Bahru is the main location for this SULAM session as it is strategic and known to be 75 percent of peat land.

For the community of Kampung Seri Bunian, Pontian, the SPAS students organized the *"Empowering the Use of Peatlands for Sustainable Agriculture in Facing Climate Change"* initiative to assist farmers in adopting sustainable agricultural practices tailored to the unique characteristics of peatlands, enhancing productivity and resilience while mitigating climate change impacts. Alongside this, the *Bersamamu* program focused on supporting the Asnaf community by providing resources, knowledge, and tools to improve livelihoods and foster economic stability. This comprehensive effort addresses critical challenges such as poverty, food insecurity, and environmental degradation, aligning with Sustainable Development Goals (SDGs) 1, 2, and 15 by promoting no poverty, zero hunger, and sustainable land management. Through these initiatives, the program highlights a commitment to empowering marginalized groups, ensuring food security, and preserving vital ecosystems for sustainable development

To strengthen the bond between SPAS students and the community of Kampung Seri Bunian, a series of collaborative programs and activities were organized to foster meaningful interactions and cultural exchange. Among these initiatives were engaging events such as *Sukaneka*, which featured fun and interactive sports activities like Tarik Tali and Baling Selipar designed to promote teamwork and camaraderie among participants. The *Cultural Night* served as a vibrant platform to celebrate and share the unique traditions, music, and heritage of Kampung Seri Bunian, creating a deeper appreciation for the local culture. Additionally, the *Anak Angkat Opening Ceremony* was held to officially mark the beginning of the student-community partnership, symbolizing unity and mutual commitment to building a strong relationship. These activities not only served as a bridge between SPAS students and the local residents but also created lasting memories and reinforced the spirit of togetherness within the community

2. Type of Project

Direct SULAM

3. SDGs category

- SDG 2- No Poverty
- SDG 2- Zero Hunger
- SDG 15- Life on Land

4. Coordinators' Name

- Associate Prof. Dr. Rosazlin binti Abdullah,
- Professor Dr. Normaniza binti Osman

5. Project background.

The Service Learning Malaysia-University for Society (SULAM) program integrates academic learning with meaningful community engagement, fostering students' knowledge application and social responsibility. This report highlights a SULAM initiative led by second-year Environmental Management students from the University of Malaya in Kampung Seri Bunian, Pontian, Johor Bahru, a region with 75% peatland. The program, themed *"Empowering the Use of Peatlands for Sustainable Agriculture in Facing Climate Change,"* aimed to address challenges associated with peat soils while enhancing local agricultural practices and supporting the Asnaf community. Enriching activities like *Sukaneka*, *Cultural Night*, and the *Anak Angkat Ceremony* further strengthened bonds, promoting love, happiness, and mutual respect.

6. Objectives

7.1 To enable students to apply the knowledge and skils of soil science learned in the classroom to solve real world problems within the community.

7.2 To raise awareness among villagers about the role of soil in the life cycle and its importance in preserving the environment for long-term sustainability.

7.3 To encourage students to interact and collaborate with the community to foster communication, problem-solving, and teamwork skills.

7.4 To introduce the UMSDP initiative at the public university level as a platform to empower sustainable soil science among the farming community.

7. Targeted community

- Community of Kampung Seri Bunian, Pontian, Johor
- Asnaf of Kampung Seri Bunian, Pontian, Johor
- Farmers of Kampung Seri Bunian, Pontian, Johor

8. **Address / Area of targeted community**
    - Kampung Seri Bunian, Batu 33, Jalan Johor, Pontian

9. **Information of Person in Charge of Targeted Community**
    - Tuan Jahidin Bin Parman (Ketua Kampung Seri Bunian)

10. **Numbers of participants involved in community**
    - Anak Angkat Opening Ceremony - 30 people
    - Sukaneka - 48 people
    - Malam Suai Kenal - 30 people
    - UMSDP - 30 people
    - Cultural Night - 60 people
    - Sejati Madani Programme (Bersamamu) - 5 asnaf family

11. **Numbers of projects community members from UM (state number of lecturers and students involved)**
    - Total students : 24
    - Total lecturers : 2

12. **Collaborator / partner / sponsor**
    - JPKK Seri Bunian
    - Department of Agriculture Johor and Putrajaya (HQ)

13. **Tentative**

Day 1: 27/12/2024

DATE	**TIME**	**ACTIVITY**
27/12/2024	6:30 am	-Departing to Pontian
	3:30 pm	-Opening Ceremony with Seri Bunian community -Anak Angkat ceremony

	5:30 pm	- Sukaneka -High-Tea
	7.00 pm	- Check-in to respective homestay
	9:30 pm	- Suai Kenal Session with JPKK Seri Bunian -Esports (MLBB) -Supper

Day 2: 28/12/2024

DATE	**TIME**	**ACTIVITY**
28/12/2024	8:30 am	- Participants of UMSDP registration
	8:45 am	- VIP arrival
	9:00 am	- UMSDP opening ceremony ● Soil lecture (presentation and quiz activity) ● Knowledge exchange session ● Painting competition using soil ● Soil experiments demonstration (The Jar Test and Water Retention of Soil)
	9:50 am	- Breakfast - Innovation booth
	10.00 am	- Theory session
	11.00 am	- Hands on session
	1.00 pm	- Lunch - Innovation booth
	2.00 pm	- Bersurai
	8.00 pm	- Cultural Night

Day 3: 29/12/2024

DAY	**TIME**	**ACTIVITY**
29/12/2024	8:30 am	- Opening ceremony for Sejati Madani Programme (Bersamamu)
	9:30 am	- Bersamamu programme to the 5 Asnaf houses - Kasturi Lime planting with Biochar introduction

	12:00 am	- Lunch
	2:00 pm	- Departing back to Universiti Malaya
	11:30 pm	- Arrive in Universiti Malaya

14. Reports for each activity

- Refer to the “ACTIVITY REPORT” folder
- LINK

15. Information of person in charge of collaborator (name, email)

- Mohd Jahidin Bin Parman, (JPKK Seri Bunian)
- En. Azizul Hafiz Bin Azizan, azizul.hafiz@johor.gov.my (Department of Agriculture Johor (Pontian))
- Pn Zakiyyah Binti Jasni, zakiyyah@doa.gov.my (Department of Agriculture Malaysia)

16. Gantt Chart

PROGRESS / WEEKS	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Identify the location of project														
Achieve agreement with the community														
Planning on activities														
Contacting collaborators and sponsors														
Finalize the tentative														
Conducting the														

program														
Report writing														
Report submission														

17. Implementation

Weeks 1-2 (Before Program):

Project Preparation:

- Assemble the project team and assign roles and responsibilities.
- Find target location with soil problem to do SULAM

Activity Planning:

- Brainstorming what kind of community activities to do.
- Allocate resources and logistics required for each activity.

Weeks 3-4:

Project Preparation :

- Further discussion on Community activities and divide it into groups as the Person In Charge (PIC)

Collaborator Coordination:

- Contact collaborators/sponsors (Department of Agriculture Johor and Putrajaya HQ) to confirm their involvement.
- Finalize agreements, roles, and responsibilities with collaborators.

Communication with UM Community Members:

- Share details about the program with UM students and lecturers.
- Provide necessary information about their roles and responsibilities during the program.

Weeks 5-9:

Project Preparation :

- Develop a detailed schedule for the entire program, including specific activities for each day.
- Brainstorm innovations for UMSDP booth session

Collaborator Coordination:

- Coordinate with the targeted community leaders (Encik Jahidin Bin Parman) for initial discussions regarding programmes and tentative schedule.

Logistics and Materials Preparation:

- Procure materials for soil science workshops, sports activities, and basic needs for community assistance.
- Ensure all required logistics (transportation, equipment, etc.) are arranged.

Final Coordination:

- Conduct a final coordination meeting with the entire project team, community leaders, and collaborators to address any last-minute details or concerns.
- Develop a detailed schedule for the entire program, including specific activities for each day.

Program Days (Week 10) (27-29 December 2024):

Day 1 (27 December 2024) :

- Conducted the opening ceremony and Anak Angkat adoption with community leaders, collaborators, and UM representatives.
- Play sports such as Tarik Tali and Baling Selipar together with the Seri Bunian youth

- Collaborated with JPKK Seri Bunian to conduct a podcast session about exploring the University life for *Suai Kenal* session.

Day 2 (28 December 2025) :

- Facilitate the UM Soil Doctor Programme with the participation of 30 community members which include farmers.
- Introduce innovative peat soil knowledge in mitigating the climate change from theory to hands on session.
- Collaborate with JPKK Seri Bunian to host a colourful Cultural night that fills with lots of performances, karaoke and feast.

Day 3 (29 December 2025) :

- Organize a Sejati Madani programme with JPKK Seri Bunian to help those in needs.
- Promote empathy and community bonding.

Weeks 11-14 (After Program):

Post-Program Evaluation:

- Gather feedback from UM students, lecturers, collaborators, and community members.
- Evaluate the success of the program against the set objectives.

Report Writing and Submission:

- Compile a comprehensive project report based on the activities and outcomes.
- Submit the report to the designated Google Drive link.

Follow-up Actions:

- Explore opportunities for ongoing collaboration with the community.
- Express gratitude to collaborators, sponsors, and community leaders through official communication.

18. Issues/Challenges

1) Fund :

- Challenges: Not enough funds to allocate all programs and all the items we need.
- Mitigation: Collect donation from various parties after our letter to raise funds had been approved.

2) Adaptation of Peat soil innovation:

- Challenges: Innovation in peatland soil practices need to align with local agricultural traditions and practices. Adapting scientific principles to fit into existing local knowledge systems requires careful consideration.
- Mitigation: Collaborate with local experts and community members to integrate traditional knowledge with modern soil science practices. Provide practical demonstrations to showcase the benefits.

3) Collaborations with other parties :

- Challenges: Collaborating in organizing activites with various stakeholders, including local authorities, community leaders, and agricultural organizations, requires effective communication and collaboration. Balancing different interests and perspectives may be challenging.
- Mitigation: Establish clear communication channels, hold regular coordination meetings, and involve stakeholders in the planning process to ensure alignment of goals and expectations.

19. Continuity of Project Please specify. e.g.: One-off / Continuous (Please recommend a semester/academic session for continuing the project with this community in the future?)

- This project was conducted as an One-off project.

20. Achievements / Impacts (for Student / Community / Industry & others)

For Students:

- The SULAM program provided SPAS students with a hands-on learning experience that bridged the gap between academic knowledge and real-world application. By engaging directly with the Kampung Seri Bunian community, students gained practical insights into sustainable peatland management and climate change adaptation strategies. This experience enhanced their problem-solving, critical thinking, and teamwork skills while fostering a deeper understanding of the socio-economic and environmental challenges faced by rural communities. Additionally, participating in cultural activities and collaborative programs strengthened their interpersonal and communication abilities, cultivating empathy, respect, and cultural sensitivity.

For Community:

For the Kampung Seri Bunian community, the program addressed critical challenges such as poverty, food insecurity, and sustainable land management. The *Empowering the Use of Peatlands for Sustainable Agriculture* initiative equipped local farmers with knowledge, tools, and practices to optimize peatland use for agriculture, enhancing productivity and resilience against climate change impacts. The Bersamamu program provided support to the Asnaf community, empowering them with resources and skills to improve their livelihoods and achieve greater economic stability. The cultural exchange and sports activities further strengthened community bonds, promoting unity and fostering a sense of shared purpose and mutual respect among residents.

For Industry and Others:

The program created an opportunity for the agricultural and environmental industries to observe and adopt sustainable practices tailored to peatland ecosystems. By demonstrating effective approaches to peatland management, the initiative contributed to the body of knowledge in sustainable agriculture and environmental conservation. The insights gained from this program from theory

to hands on sessions could inspire local businesses and policymakers to invest in sustainable agricultural technologies and community-centric solutions that address climate change and food security.

21. Any Documents (official letter) to indicate collaboration with agency / external parties for this project. (e.g.: Letter of approval / agreement to conduct this project and others)

- *Refer to google drive link (Letter's folder)*
- SULAM

22. Activities Photos

- *Refer to google drive link (Image's folder)*
- SULAM

23. Activities Video

- *Refer to google drive link (Final Video's folder)*
- SULAM

24. Interviews / Testimonial Video - before & after

- *Refer to google drive link (Interview Video's folder)*
- SULAM

25. **Testimony of PIC of program (Joyce Chong E-Zin)**

"It was both an honour and a challenge to take on the role as the director of the SULAM project, especially with only 12 weeks to plan. I deeply appreciate the guidance from our coordinator and the cooperation of my coursemates and the partners, whose support made this journey so meaningful. This project not only allowed us to develop valuable soft skills and practical knowledge beyond the classroom, but also provided us with the opportunity to engage with the community and build strong relationships with them. I am grateful and proud of the positive impact we were able to bring to the community through our activities." - Joyce Chong E-Zin, Head of SULAM Project 2024.

26. Testimony of targeted community

- ***"****It is interesting to see that youths nowadays have the passion for agriculture, and are doing such meaningful efforts.The innovation booths are interesting. The talk from DOA is also very insightful, and I'm glad to have conversations with them to inquire about my farm's issues. Keep it up!"* - Saiful Bahri Bin Parman, UMSDP Participant
- *"The cultural night was such a happy, lively, and colourful event. Everyone was so cheerful and enthusiastic, and the classic Malay theme gave the whole evening a really authentic feel. The performances, like zapin and silat, were simple but full of cultural meaning, and they were so entertaining to watch. What really made the night special, though, was how friendly and welcoming the hosts were. They treated everyone like family and didn't feel awkward at all, even with people they had just met. It was such a fun and memorable night for everyone. "* - Puan Noor Adibah Ahmad.
- *"Thank you, my dear grandchildrens, for coming and bringing food and money for grandma. The cost of goods has gone up, and the economy is tough right now. My daughter is living overseas with her husband from Iraq, and she only comes back once a year. You all reminded me of her. Grandma loves you all."* - Nenek, the Fifth Asnaf Family visited.
- "*I am grateful that you guys are here in Kampung Seri Bunian to do this SULAM program, I can sense a very powerful teamwork between you guys, SPAS student, of course there is always a room to improve but overall you guys achieved your objectives here and the relationship between SPAS student and JPKK Seri Bunian are something that needs to be cherished* " - Cik Hidayah, JPKK Seri Bunian.
- *The kids really enjoyed the Sukaneka and happy to played with you guys, SPAS students"* - Encik Hanif, JPKK Seri Bunian.

27. Total Project Cost

- Overall cost : RM4275.00

28. Financial Resources Internal Fund:

Estimated Cost (DEBIT)		Total (RM)
1.	Sponsorship	**1887**
2.	Faculty's allocation(CITrA)	**1200**
3.	Students' collection	**797**
4.	Students' sales(shirt)	**391**
Overall Total		**4275**

29. Conclusion

Overall, the SULAM program has successfully achieved its objectives by integrating academic knowledge with community service, fostering cooperation, leadership, and mutual respect among students and the community of Kampung Seri Bunian. This initiative empowered local farmers with sustainable agricultural practices tailored to peatlands, enhanced the socio-economic stability of the Asnaf community, and promoted cultural exchange through collaborative activities like Sukaneka, Cultural Night, and the Anak Angkat program. The program not only addressed key challenges such as poverty, food insecurity, and environmental conservation but also strengthened the bond between SPAS students and the local community. Guided by valuable advice and support from the program coordinator, the program ran smoothly and successfully, with suggestions for future improvements focusing on more efficient early-stage planning and preparation.

30. List of students involved

Position	Name	Matrics Number
Advisor	Dr. Rosazlin binti Abdullah	
Director	Joyce Chong E-Zin	23006214
Vice Director	Muhammad Fareez Iskandar Bin Osman	22000678
Secretary	Nur Adilah Syamimi Binti Mohd Hazri	22001117
Treasurer	Tan Chu Yi	23006154
Programme & Protocol	Nur Hazirah Binti Marzuki Aminudin	22001040
	Nursakinah Arifah Binti Nor Az Azlan	22001195
	Nur Syuhada Binti Mohamed Rawidean	23006213
	Nur Zatul Nafisa Bt Azizan	23006035
	Iman Marsya Binti Mohd Sobri	22001352
	Siti Amira Najwa Binti Budiman	22000649
Logistics & Welfare	Sarah Aqilah Binti Mohd Azlan	22000936
	Nur ‘Alima Fadhlina Binti Mad Shahmiour	22001011
	Nurin Fatihah Binti Abdul Raof	22004013
	Dania Afrina Binti Norhafizan	23006036
	Aqrabin Shafiq Bin Hamsah	23005851
Sponsorship & Outreach	Tew Jia Yu	23005910
	Nur Alya Batrisyia Binti Shahariman	22000522
	Nur Ain Bashirah Binti Zahrul Hakim	23005852
	Siah Zhi Ren	23005909
Multimedia & Publicity	Masturina Mirza Bt Mazuki	22000761
	Tan Jing Le	23006034
	Nor Al-Qamar Hesham Mahyoub Al-Mekhlafi	22078742
	Lau Jia Jie	
	Reem Ghassan Mutaher Al-Iryani	22113286

31. Activity videos
    Majlis Sambutan: Anak Angkat.mp4
    Sukaneka: Sukaneka Video
    Jom Masuk U: JOM MASUK U x ML .mp4
    UMSDP: UMSDP.mp4
    Malam Kebudayaan: https://youtu.be/-9SSBdLf2zg?si=8Vi1wvwjX68QkGK6
    Bersamamu: BersamaMu.mov
    Overall: Full Video Sulam.mp4